Application/Control Number: 09/462,971

Docket Number: AD6516

patent issued to Spelthann, (U.S. 5,610,234). Reconsideration of these rejections is requested.

In view of the above amendment incorporating the limitations of Claim 4 into Claim 1 and the lack of this rejection relative to Claim 4, it is felt that there is a basis for the withdrawal of these rejections and such action is requested.

At present, Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over the patent issued to Spelthann (U.S. 5,610,234) in view of a patent issued to Opsahl et al. (U.S. 4,851,463). Reconsideration of this rejection is requested.

The Spelthann '234 reference teaches an upper limit of 50% loading of additives at column 4, line 6, as acknowledged by the Examiner. Also, looking at the relative amounts of components in Examples No. 5 and 6 of the '234 disclosure (the two examples illustrating the use of EVACO) and adjusting these relative amounts to maximize that implied in using up to 50% additives (i.e., the most favorable interpretation of the teachings relative to supporting the logic of the rejection), two of the three polymeric components will be outside the ranges of the amended Claim 1. Clearly these differences indicated that the Spelthann reference does not anticipate the claimed concentration ranges nor teach the use of EVACO to compatibilize the inorganic filler with the specific combination of polymer components which then allow the advantages very high loading of inorganics.

The disclosure in the secondary Opsahl et al. is insufficient to correct the deficiencies associated with the teachings of the primary reference and as such the combination does not and can not serve as a *prima facie* showing of obviousness under §103. More specifically, the Opsahl reference clearly teaches that to achieve high loading of inorganic filler in their respective polymeric system sufficient plasticizer must be present. In support of this statement the Examiner's attention is directed to comparative Example C4 at column 6 of the '463 reference and in

particular the closing sentence: "This illustrates that high levels of filler with insufficient plastizers produce inadequate material."

Neither the Spelthann '234 reference nor the Opsahl et al. '463 reference teach how to achieve compatibility between the polymer components and inorganic filler at very high loading levels such as shown and claimed in Applicants' invention. It is felt that this showing of unexpected results is sufficient to overcome even a *prima facie* showing of obviousness and as such there is a clear basis for the withdrawal this §103 rejection. Such action is requested.

In view of the above brief remarks it is felt that all claims are now in condition for allowance and such action is requested. Should the Examiner believe that an interview or other action in Applicants' behalf would expedite prosecution of the application, the Examiner is urged to contact Applicants' attorney by telephone at (302) 992-6824.

Respectfully submitted,

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Version with markings to show changes made

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In the claims:

Claim 1 has been amended as follows:

- 1.(Amended) A flame retardant, halogen-free polymer composition comprising a blend of
- (1) ethylene vinyl acetate carbon monoxide terpolymer containing 30-90% by weight ethylene, 10-70% by weight vinyl acetate and 1-40% by weight carbon monoxide;
- (2) an ethylene vinyl acetate or polyolefin selected from the group consisting of (a) ethylene vinyl acetate containing 25-90% by weight ethylene and 10-75% by weight vinyl acetate, (b) a linear low density polyethylene, (c) a low density polyethylene, (d) a very low density polyethylene and (e [d]) a high density polyethylene; and mixtures thereof;
- (3) an ethylene vinyl acetate or polyolefin selected from the group consisting of (a) ethylene vinyl acetate containing 25-90% by weight ethylene and 10-75% by weight vinyl acetate, (b) a linear low density polyethylene, (c) a low density polyethylene, (d) a very low density polyethylene and (e[d]) a high density polyethylene; and mixtures thereof; each of which is grafted with 0.05-3 % by weight of a carboxylic acid or an anhydride thereof; and (4) an inorganic filler;
- wherein component (1) comprises 5-15% by weight of the blend, component (2) comprises 10-20% by weight of the blend component (3) comprises 3-10% by weight of the blend, and component (4) comprises 60-70% by weight of the blend and wherein component (4) is aluminum trihydrate, magnesium hydroxide, calcium carbonate, calcinated clay, talcum, ammonium polyphosphate or a mixture thereof.